



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,459	12/03/2003	Masaki Shiraishi	0229-0785P	4041
2292	7590	05/09/2006		EXAMINER
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PRETLOW, DEMETRIUS R	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/725,459	SHIRAISHI, MASAKI
	Examiner Demetrius R. Pretlow	Art Unit 2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 25 January 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-12, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3 and 5 is/are rejected.
- 7) Claim(s) 4, 6-12, 14 and 15 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 January 2006 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

The allowance of claims in Ex Parte Quayle Action mailed November 25, 2005 has been withdrawn. Prosecution has been reopened and new prior art has been applied to the claims.

### ***Claim Objections***

Claims 1 and 9 are objected to because of the following informalities:

In claim 1, lines 7 applicant can not ascertain "making a formula of the physical parameter for the force" Force is a theory of physics and the formula is not made.

In reference to claim 9, line 8, applicant can not ascertain " formula made in advance using data on a relationship between the force exerted on the wheel and the physical parameter of the vehicle wheel", Force is a theory of physics and the formula is not made. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sumiya et al. (US 6,263,728). Sumiya et al. teach obtaining data on a relationship between the force (static frictional force) exerted on the vehicle wheel and a physical parameter (pressure) of the vehicle wheel at at least one predetermined measuring position

Art Unit: 2863

(“constant position” Note column 6, lines 4); (shown by the impact of pressure on the static frictional force ) Note column 6, lines 50-54, and abstract lines 1-5: Sumiya et al. teach making a formula of the physical parameter for the force, using the obtained data on the relationship. Note column 6, lines 50-53. Sumiya et al. teach measuring the physical parameter (pressure) of the vehicle wheel during rolling. Note abstract lines 1-4. Sumiya et al. teach computing the formula using the measured physical parameter to calculate the force. Note column 6, lines 50-53.

In reference to claim 2, Sumiya et al. teach wherein the force is a vertical force (vertical pressure). Note abstract lines 2-3.

In reference to claim 3, Sumiya et al. teach where the outdoes teach wherein the radially outermost ground contacting part is a tire Note column 5, lines 57. Sumiya does not explicitly teach , the radius part is a wheel disk of a wheel which the tire is mounted however this would be inherent to measurement apparatus of Sumiya , particularly the test bench (12), there must be attached to a wheel or rim and every wheel or rim has a radius part. Note column 5, lines 57-58.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sumiya et al. (US 6,263,728) in view of Drahne et al. (US 5,913,240). Sumiya et al. teach the limitations above.

Sumiya et al. does not teach wherein said at least one predetermined measuring position is a twelve-o'clock position (P3), three-o'clock position (P4), six-o'clock position (P1) and nine-o'clock position (P2) which are arranged at every 90 degrees around the rotational axis of the vehicle wheel

Drahne et al. teach wherein said at least one predetermined measuring position is a twelve-o'clock position (P3), three-o'clock position (P4), six-o'clock position (P1) and nine-o'clock position (P2) which are arranged at every 90 degrees around the rotational axis of the vehicle wheel. Note Figures 3a-3d.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Sumiya et al. to include the teaching of Drahne et al. because it would determine a time period for the revolution of a wheel. Note column 12, lines 30-31.

### ***Claim Objections***

Claims 4,6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In reference to claim 4 the prior art of record does not teach the inclusion of the limitations of an wherein the physical parameter is the magnitude of a radial strain in the radius part. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record.

In reference to claim 6 is the prior art of record does not teach the inclusion of the limitations of an locating a sensor for the physical parameter which is fixed to the radius pad; and reading the sensor when the sensor is at said at least one predetermined measuring position. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record.

In reference to claim 7 the prior art of record does not teach the inclusion of the limitations of an locating a plurality of sensors for the physical parameter which are fixed to the radius pad; and reading each said sensor when the sensor is at at least one of said at least one predetermined measuring position. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record.

In reference to claim 8 the prior art of record does not teach the inclusion of the limitations of an locating a plurality of sensors for the physical parameter which are fixed

to the radius part; and reading each said sensor when the sensor is each of said at least one predetermined measuring position. It is these limitations found in each of the claims, as they are **claimed in the combination**, that has not been found, taught or suggested by the prior art of record.

Claims 10-12, 14-15 are objected to for depending on objected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (571) 272-2278. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

*Demetrius R. Pretlow* 4/28/06

Patent Examiner

*Michael Nghiem*  
MICHAEL NGHIEM  
PRIMARY EXAMINER



FIG.4

